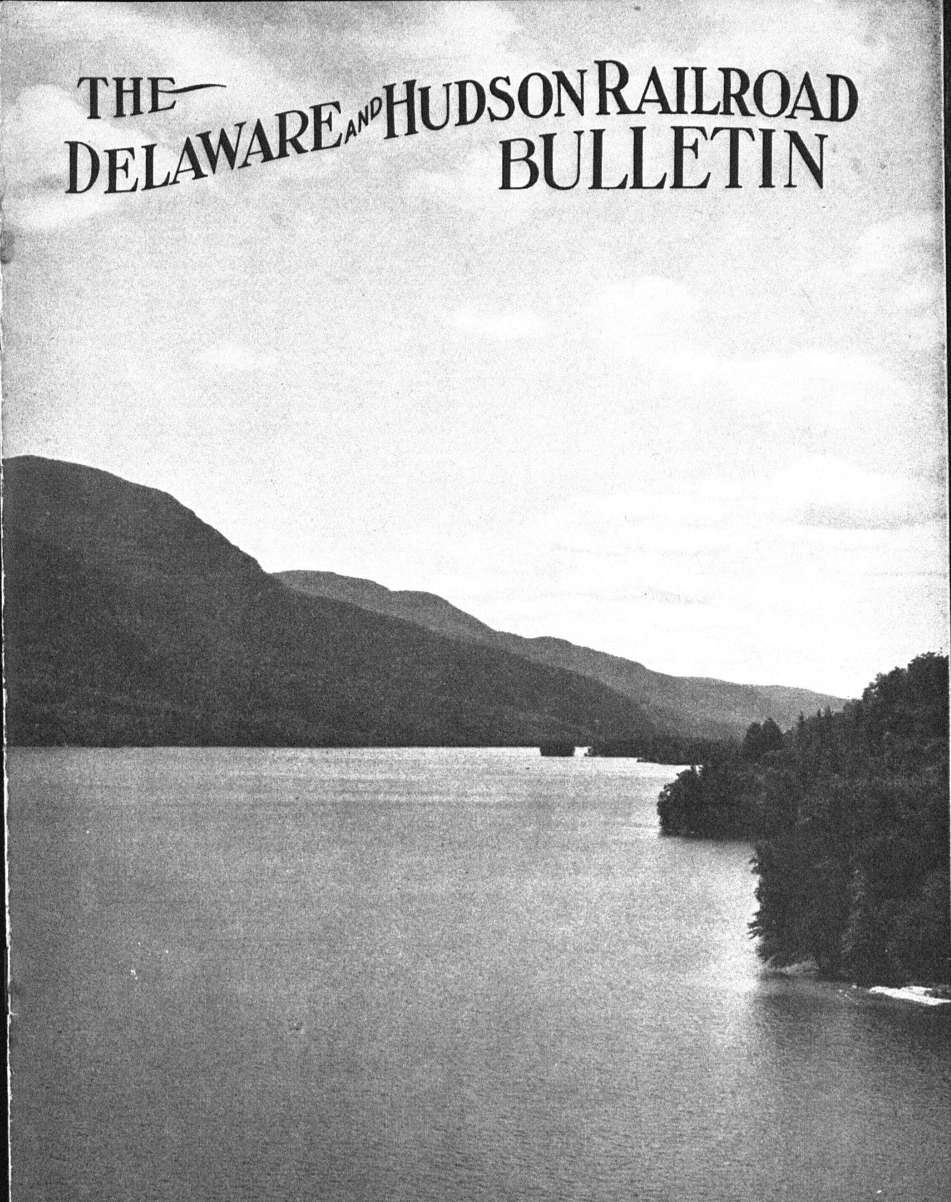
THE DELAWARE AND HUDSON RAILROAD BULLETIN



“the D&H”

APRIL 1, 1932

LAKE GEORGE
BLACK MT. AT LEFT

Forward

LOOKING forward; never backward,
For there's nothing there to see.
Yesterday's unfinished battle
Is the task for you and me.

Draw the sword! Discard the scabbard!
Sheaths are built for blades that rest.
Sound the trumpet. Wave the banner.
Join the battle with a zest.

If the spears you face are longer,
Add a step onto your own.
Drive the enemy before you,
'Til the victor's spoils are known.

—E. HERMAN BOLTON.

The
DELAWARE AND HUDSON RAILROAD
CORPORATION
BULLETIN

'Twas Called "Pumpkin Hollow"

When George Cotton's Family Moved to Hudson, Pa., in 1867

GEORGE COTTON

LONG before the twentieth century efficiency wave swept some of the beautiful but unnecessary items from railroad practice, in favor of more conservative and practical substitutes, many units of rolling stock and motive power were veritable masterpieces of ornamental art. Both the interior and exterior of passenger equipment were elaborately carved with a multitude of designs, done in expensive woods. Although pleasing to the eye, this practice earned no revenue, in fact, it cost a lot more to dust and polish than the cars of the present.

One of the most attractive Delaware and Hudson engines ever to turn a wheel on the Pennsylvania Division, according to GEORGE COTTON, retired Wilkes-Barre roundhouse machinist, was the old No. 7, the *Quintard*, which was stationed at Hudson back in 1875. There were hand carved grapes on her tender so realistically done that one was tempted to pick them. The engine itself, moreover, was painted in a variety of colors in addition to the conventional black, and the numerous brass bands, handles, bell and flag staffs. The top of the smokestack was bright red, while dashes of gold and blue completed her gaudy dress.

The other two engines then assigned to Hudson, Nos. 6 and 8, named *Mill Creek* and *J. J. Albright*, respectively, were also painted in bright hues. Numbers 7 and 8, both of which had four drivers, were known as road engines, and operated between Olyphant and Hudson; No. 9, a six wheeler, was used exclusively on mine runs.

Today, at 81, MR. COTTON looks back on 71 years of productive employment. He was born at Blenavon, Wales, in 1851, the son of a mining foreman. In Wales coal was then mined from pits, much after the manner of quarrying, as contrasted to the shaft and tunnels employed to extract the deeply imbedded anthracite from the hills of northeastern Pennsylvania. While he was yet a small boy his family migrated to America, settling at Bloomsburg, Columbia County, Pennsylvania, where his father was employed in an iron foundry.

Educational facilities were sadly lacking at the time so GEORGE left school at 10 to go to work. His first position was with a pottery making concern. GEORGE ground the clay for the potters and kept a supply available on each workman's bench. Although this was a very lucrative occupation and the spinning wheels on which many artistic pieces were fashioned beneath the skilled hands of the potters interested him immensely, he was forced to leave the plant when his family moved to Ashland, Penna.

GEORGE'S father resumed his original work here as a mining foreman, while GEORGE and his brother worked in the mines. At first GEORGE tended the "doors" which regulated the currents of fresh air continuously being pumped in. By means of these "doors" the air was deflected into the desired tunnel as needed.

In 1867 the Cotton family again moved, this time to Pumpkin Hollow, later known as Mill Creek and now Hudson, Penna. Here GEORGE was employed in the Union Slope, now operated by the Hudson Coal Company as a part of the Loree Breaker's workings, as a mule driver, moving the diminutive coal cars in and out of the mines. Shortly after his arrival he was promoted to the rank of runner, a position which paid $3.25 a day. As runner he was in charge of the drivers. It was his responsibility to make sure that each miner had sufficient cars in his chamber at all times and also to give each miner exactly eight cars per day.

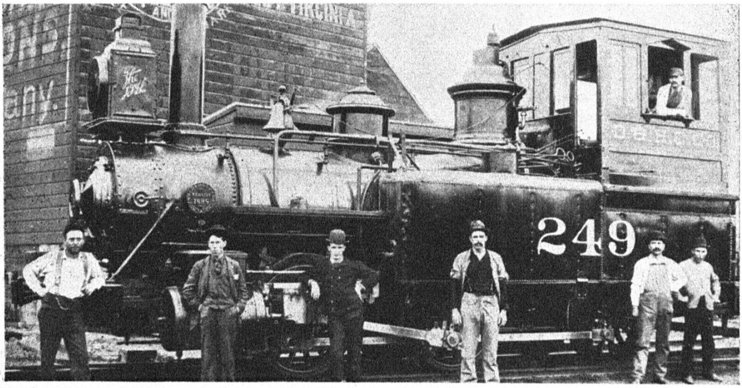
Despite the attractive wages he was receiving as runner, GEORGE left the employ of the coal company in 1871 to enter the railroad service of the Delaware and Hudson at Hudson under Yard Master Woodward. During the following seven years MR. COTTON successively held positions as trainman, fireman, and finally, on February 1, 1880, he became an engineman with engine 22, named the *Fuller*. Although his position called for runs between Plymouth and Hudson, and various mine switching work, there were many evenings when, on finally getting back to the roundhouse, he was sent up to Green Ridge or Carbondale with a train of coal, and finally reached home as late as 3 or 4 A. M. Nevertheless, he had to go out early the next morning on his regular run.

In addition to the long hours an engine crew spent on the road, the engineer and fireman had to make all repairs to their engines with the exception of turning the tires and grinding the valves. They had to fill their lubricators, oil all the moving parts, replace broken springs, change the wheels on the tenders, grind the pop valves, and keep the engine shined "so you could see your reflection in it as if it was a mirror." Many a day, MR. COTTON says, he polished that engine in the summer time, with the thermometer close to the 100 degree mark, until he could scarcely see.

Operation of the single track line between Ply-

(*Continued on page 108*)

At Kenwood Yard in 1890



Left to right: M. Cullen, Conductor; F. Dwyer, Timekeeper; P. Kilmartin, Brakeman; P. Burns, Switch Tender; William Singer, Brakeman; J. Hunt, Brakeman. Engineman Wasserback is in the cab window. The photograph was loaned to The Bulletin by Mr. Cullen.

The Five Major Hazards* of the Workman

By L. F. LOREE, *President*

(Continued from last issue)

THERE are few greater catastrophies that could possibly befall a man having a family than to find himself out of a job and compelled to look elsewhere for another. Unfortunately, no figures exist to show the adaptability of the workmen to the demands made upon them by modern industry. During the World War 1,700,000 men taken in the draft were examined as to their mental intelligence and ten per cent of them were found of so low an order of intelligence that it was felt that they could not be sent overseas as privates, notwithstanding they were in prime physical condition. Industry calls for a higher standard of intelligence than for this grade in the army, although it does not make so great a demand upon physical condition.

At Silver Bay last summer, at the International Business Relations Conference, an estimate was given that there were perhaps 5,000,000 men out of employment and that of these the unemployable constituted 25 per cent, the unstable 35 per cent, and the stable unemployed 40 per cent. While the total number in employment is substantially the same whether as individuals their employment is stable or unstable, the variations of the former over the latter relations can scarcely be exaggerated. There is a very real difference in considering 5,000,000 and 2,000,000. Perhaps nothing would be of more real service than the assemblage of accurate information. To deal intelligently with this problem of the first importance, we should have all the facts carefully marshalled.

The Delaware and Hudson Railroad Corporation has undertaken to stabilize its forces by what, for the lack of a better name, is called an "elastic day." After the shop strike of 1922 the forces were organized on the basis of going through a season of minimum work on an eight-hour day. As business increased through seasonal demands and from other causes, the day was lengthened to ten hours, at the normal rate per hour, time and one-half being paid after the ten-hour period. This took care without penalty of an increase in time for labor of 25 per cent during periods of demand and for a slackening of 20 per cent as the demand fell off. As experience was gained the working of the plan improved greatly and so far during this depression there has been no man discharged for lack of work in the maintenance forces, although the working time has been reduced in some services to a five-day or four-day week. It will be seen that under this plan the men have an opportunity, through increased earnings, to participate to the fullest extent in the bounties of good times and are protected in the continuity of their employment in the adversities of bad times. The danger of spreading the work by too radical a reduction in the working time is that after prolonged periods of reduced earnings great discontent arises. It was this mistaken effort to spread the available employment as thin as possible that brought on the great railroad strike of 1877.

The rapid improvement in machinery through the stimulation of inventive genius, by a great war, or the introduction of a new industry, has been particularly marked in the last 17 years. This has frequently greatly dislocated working forces. We found that the natural wastage in our forces through invalidism, personal injuries, death, superannuation, and drift to other employment fields caused an average depletion of about five per cent per year. A careful study of our tool equipment indicated that if we put in new tools at a cost no larger than $100,000 per year no technological displacement would be caused by their introduction. This was confirmed by experience and the program is still being followed on this basis. Both the company and the workmen benefit by the continuous employment of a corps educated to its methods and trained to work together.

Advantages of Piece-work

WITH the introduction of new machines the piece-work rates were changed to secure to the company a return upon its investment, but only after consultation and upon full agreement with the workmen involved. As an example of the benefits accruing from increased interest and incentive, there have been developed by the workmen "shop kinks"; that is, new tools and accessories and other time and labor-saving and safety devices—32 new tools, 23 machines and tool accessories, 36 hoisting and handling appliances, and 5 locomotive accessories—in all 96—and there are

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**Sickness, Accident, Death, Unemployment, and Old Age. Insurance against the first four was discussed in the last issue.*

others of which we have no record. In these no changes were made in piece-work rates, the workmen receiving the entire benefit. Under a well worked out piece-work system each worker on every job in every craft becomes a specialist who, through acquired speed and efficiency, is able to increase materially his daily wage. The supervision formerly given by the foreman alone now becomes a prime interest of each workman.

So far as possible a thorough-going piece-work system was put into effect, as a result of which, as against an hourly rate of 75 cents, in the machine shops the men earn at piece-work 95 cents per hour. In the car shops the corresponding figures are 68 and 97 cents. To some extent this is, of course, helped by the introduction of new tools, mechanization having been completed in the car shops. There is, further, the increased return from the proper heating and lighting of the shops, model sanitary outfits, concrete runways and walks, ample crane ways, a full supply of tractor cranes, and the fruits of managerial resource. After the reorganization of the shop forces in 1922, a series of car building competitions by selected gangs from the different shops was carried on annually until 1929. These attracted a great deal of attention, and at the last one more than 300 officers from other railroad companies were present. Today the average workman makes more money at his piece-work than the men of the winning team did in 1923. It is not too much to expect that by a properly organized piece-work basis of wage and proper tool installation the earnings of the workmen may generally be increased 50 per cent without strain upon strength or endurance, while the company secures corresponding gains. In times of full business, when the work-day is extended, the earnings of the men may also be increased over the normal by 25 per cent.

Since the inauguration of the elastic work-day, except in two instances at the beginning where due to changed conditions growing out of Federal control some reductions in forces were necessary, not a single employe in the maintenance branches has been discharged except for rule infractions, and then only after a thorough investigation. During the prolonged strike in the anthracite coal region in 1925 the company spent approximately $1,900,000 in work on equipment and track which might have been postponed, and the working time was, toward the last, with the cordial assent of the men, temporarily reduced to five days a week. Now again during this depression the force is on a week of five days, and, in some cases, of four days.

Unemployment Insurance

ONE of the questions now much discussed as of the first importance is unemployment insurance. Insurance is a method to protect against loss through the application of the doctrine of chances and is based upon actuarial experience. There are two kinds of chances or probabilities—the probabilities of numerical relations, which are fully covered by mathematics, carried as far as a "Calculus of Probabilities," and the probabilities of events, which are unpredictable. Unemployment is an event and there is no way of judging as to its probabilities. The probabilities of events may be illustrated by the case of Sopwell against Bois:

This was an action brought by a breeder of race horses to recover damages for a breach of contract. The contract was that Cylene, a race horse owned by the defendant, should, in the season of 1909, serve one of the plaintiff's brood mares. In the summer of 1908, the defendant, without the consent of the plaintiff, sold Cylene for $150,000 to go to South America. The plaintiff claimed a sum equal to the average profit he made through having a mare served each year by Cylene during the preceding four years. During those four years he had had four colts, which he sold at a gross profit of $16,500.

Now, here was a probability involved, but its relations were the relations of similarity; it might be greater or less. The judge decided the case not on the relation of numbers, but on the relation of events. He held the plaintiff's case to be based, for instance, upon the assumption that Cylene would be alive and well at the time of the intended service; that the mare sent would not be barren, that she would not slip her foal, that the foal would be born alive and healthy. There was a breach of contract, damages were due, but he could not estimate these chances, and, as he could not estimate the damages, he found himself unable to award more than nominal damages.

Today everyone must deal with statistics. These present great and unusual difficulties. Not only must they be accurate mathematically, but, above all, they must be truthful, and to use them one must be sufficiently familiar with the plant, personnel, location, and other circumstances to recognize the factors, and to know whether they suggest a numerical ratio or a ratio of events.

The use of the term "insurance" in connection with unemployment is a misuse of words. Unemployment is a probability of events. There is no possible way in which an actuarial basis may be determined. Further, it lies in a field in which dangerous consequences may be set up. All business relations are reciprocal. If business becomes poor and there is little work to be done, some would charge the company with the duty of taking care of its workmen. What is the reciprocal relation? Presently business becomes good, the company wants its workmen to continue in its service. One of them has a better job offered him in the next block and cannot go because of his obligation to remain. His freedom of action is lost. Both parties have, in turn, been brought into involuntary servitude. It is against the freedom guaranteed by the Constitution.

Shorter Work Periods

THERE is a great hazard which does not seem to be generally recognized in the demands made for a short day and week. In the copy books in which I learned to write there was a line at the head of one page reading: "Satan finds mischief for idle hands to do." This should excite inquiry as to whether or not the reduction of the working time in industry to a six-hour day and five working days to the week would not create a problem even greater than that created by the prohibition laws. When the working time was decreased from ten hours to eight per day, the company found it necessary to promote and encourage recreation. It did this, organizing some 63 associations, actively assisting the men in every way possible, and withdrawing as soon as the organizations were self-sustaining. These activities include system, divisional, and departmental baseball organizations; a baseball park, fully equipped, suitable for track and other athletic events; also bowling, basket-ball, volley-ball, swimming, etc. These and other activities have aroused much interest and are particularly attractive to the younger employes.

There is a further major danger in shortening the period of industrial work. The farmer begins his day's work before sunrise and it does not end until after sunset. His work is necessary each of the 365 days of the year. The spread of his work is something over 6,000 hours a year. On the other hand, the workman takes out all the Sundays, ten holidays, some work only one-half day on Saturday, some not at all, and few more than eight hours. If we went to a six-hour five-day week, the spread of his labor would be about 1,750 hours, an advantage over the farmer of an amount in time spread of 4,250 hours. What will be the effect of an advantage of nearly four times the disposition of time? The farm population from 1920 to 1930 decreased 4,392,269 souls. May we look for its abandonment to the point of destruction, civilization perishing with it?

Improved as are the human relations over former generations, humane as it is that this should be accentuated, these are not lines upon which improvement can be worked out. That, as one step, improvements can be made to the great benefit of the workman through the stabilization of employment with corresponding benefits to industry, there can be no doubt.

Dismissal Allowance

ONE way of alleviating the hazard of unemployment is through a dismissal allowance. The Delaware and Hudson Railroad Corporation in 1922 instituted a dismissal allowance of $15 per week for six weeks, unless employment was secured in a shorter period. Since 1922 we have had 360 dismissals due to lack of work and 268 due to misbehavior. There was paid on this allowance $28,167.81. Eighty-four per cent of the men dismissed drew compensation during the entire six weeks. Their ability to secure promptly employment may have been considerably handicapped by lack of recommendation. There have also been cases where men felt they were unjustly dismissed and, seeking to secure reinstatement through grievance committees, made no effort to secure other employment.

Few things have been so productive of improving the employment relation as the expenditure of this modest sum. We have all been surprised at the way in which it has worked out.

The point of contact between the workman and the company is the relation between the workman and the foreman. As industry developed the foreman had the unquestioned right of hiring and discharging, and that was affected by his personality, the condition of his health, temper, and other matters, and the workman had in that relation so little protection that there was built up in his mind a feeling of resentment. The dismissal allowance has, I think, wiped out this difficulty. The foreman feels his responsibility, knows that sharp inquiry will be made to develop the facts that his action, if upheld, must have been based upon compelling grounds, while, on the other hand, the workman feels he has a protection that he heretofore lacked. Human nature being what it is, he will put up with a great deal from the foreman that he would not think of putting up with before, because now he is not so dependent on him and he finds an accommodation in circumstances that he would not before tolerate.

There seems to be a general misunderstanding of how the benefits of industrial development have been distributed. The Liverpool and Manchester Railroad was opened in 1829. In 1830, the fol-

(Continued on page 109)

The " Why" and " How " of

Mechanicville Transfer

ONE of the major transportation problems which must be solved by our railroad is the concentration of the millions of small freight shipments which it must handle annually, 7 millions in 1931, into groups approximating carload lots for distribution to the various terminals and way stations.

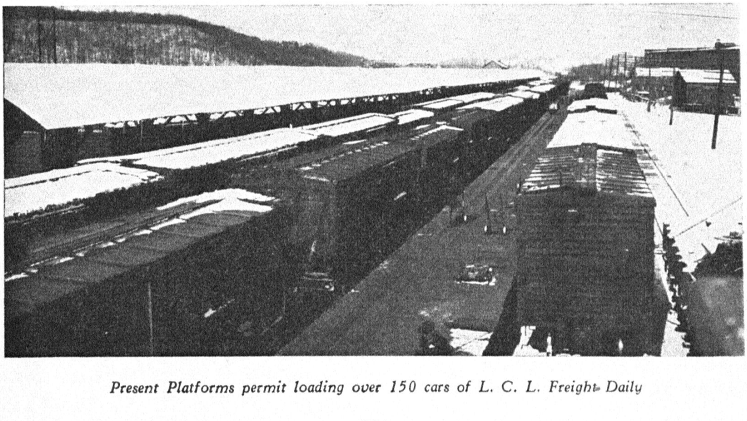
To expedite the movement of such shipments, the company operates a freight transfer platform at Mechanicville where the handling of such items is centralized. At this station an elaborate system has been developed to consolidate all the shipments from points on and off the line destined for other particular stations into single carload lots, thus permitting frequent service to all points on the line as well as stations on connecting railroads.

The present transfer lay-out includes eight tracks, four for inbound and four for outbound cars. Tracks 11, 12, 17, and 18, the outside tracks, hold loaded cars the contents of which is to be transferred into empty equipment on tracks 13, 14, 15, and 16. Steel bridges are laid down between the cars and from cars to the platforms so that the freight can be trucked to them. Certain cars are used as bridges to truck through to get from cars on one platform to the cars spotted on another.

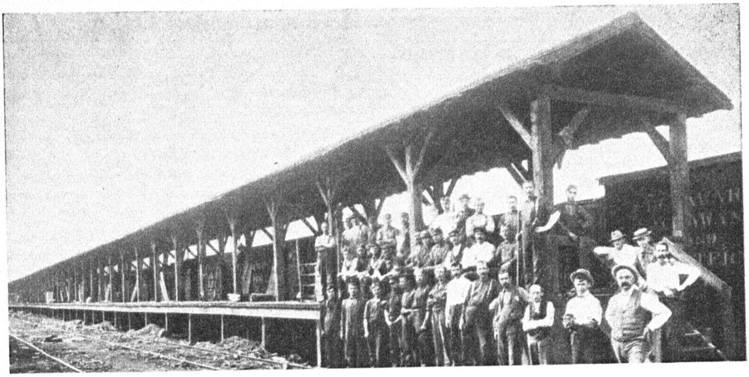
Each of the four tracks holding empty cars in the morning is for shipments destined to points in a definite geographical location. For instance, on track 13 are cars for local and northern Delaware and Hudson points as well as stations on the New York Central and Boston and Albany. Items for cities on the Pennsylvania, Central Railroad of New Jersey, Reading, Lehigh Valley, and southern Delaware and Hudson stations are trucked into cars on track 14. Consignments for points along the northern divisions and branches of our line as well as those on the Central Vermont and Canadian National go into cars on track 15. Track 16 is for equipment to move to our connections at Binghamton: the Erie; Delaware, Lackawanna and Western; Lehigh Valley via Owego; and the Ontario and Western at Sidney.

There are stations on our line, furthermore, which will seldom receive sufficient freight in one day to justify the billing of a separate car from the transfer. One car is therefore loaded with freight consigned to several small stations in the same locality and these shipments are distributed by a way freight.

The mode of operation of the transfer platform is somewhat as follows: Early in the morning a classification clerk goes over all the empty cars on the four outbound tracks and assigns a destination



Present Platforms permit loading over 150 cars of L. C. L. Freight Daily



Original Mechanicville Transfer Platform, June 18, 1894, Accommodated 28 Cars

terminal to each. On track 13, for instance, will be a car for Cohoes; another for the Hudson Navigation Company dock at Albany. A car will be designated for Pittsburgh on track 14. One for Riverside, N. Y., will appear on track 15, and so on. Into each of these cars will be loaded all the freight from the entire system as well as connecting lines which has arrived for its destination.

Each car is given a classification number so that the truckers can locate it when transferring parcels. Classification numbers have three digits, the first indicating the track on which the car stands and the other two figures its position on the track specified. To simplify this, track No. 11 is known as No 1; track No. 12 as No. 2; track 13 is No. 3, etc. Car 318, therefore, will be on track 13, and the eighteenth car from the north end of the platform; in like manner, car 601 would be the first car on track 16.

When this schedule has been completed the classification clerk marks on each waybill the classification number of the car in which the goods are to be forwarded. In a single inbound car there may be fifteen or more items consigned to as many different points on our line and its connections. The bills are then turned over to a checker who will be in charge of the unloading of that particular car.

The latter delivers each shipment or as much of a shipment as can be loaded on a truck to a trucker together with a ballot on which is written the classification number into which it is to go. When the shipment has been transferred the trucker takes another printed slip, containing the classification number from a hook on the side of the car. If the numbers of the two slips correspond, he has delivered his parcel properly. On his return to the car being unloaded he turns the two slips over to his checker who again compares them, thus giving a double check on the trucker's accuracy.

Any discrepancies such as "shortages" or "overages" are noted on the waybill at the time the transfer is made. If shipments are found without a waybill or astray, a report is made and an astray waybill is issued to cover. When the inbound car has been emptied the checker returns the waybills to the office where the tonnage transferred from the inbound load is computed for use in figuring the pay of the trucking gang.

These men, it might be explained, are paid on a tonnage basis although they are guaranteed a minimum rate if they do not exceed a certain number of pounds per day. In other words, if they handle a number of light shipments in the course of the day and do not exceed the minimum, they are paid the guaranteed rate. If their tonnage exceeds the minimum they are paid a bonus accordingly.

A second clerk in the office adds the new car number to the waybill and makes a second check to discover discrepancies in the billing. The bills are then sorted into a rack in which there are pigeon holes for each car being loaded. When the bills covering all the items in a car have been assembled and checked they are put into a large envelope known as a waybill pocket which is sent to the

(Continued on page 110)

The
Delaware and Hudson Railroad
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BULLETIN

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PUBLISHED semi-monthly by The Delaware and Hudson Railroad Corporation, for the information of the men who operate the railroad, in the belief that mutual understanding of the problems we all have to meet will help us to solve them for our mutual welfare.

All communications should be addressed to the Supervisor of Publications, Delaware and Hudson Building, Albany, N. Y.

Vol. 12 April 1, 1932 **No. 7**

Keep Smiling

ON the entrance door of a certain store in a midwest town is placarded the sign, "Keep smiling." As you put your hand on the door to open it, you cannot miss seeing the sign.

Once the proprietor of this store was a candidate for public office, and while he was an efficient business man, his unfitness for the office sought was generally recognized. Hence, on election day, when the votes were counted, only a meager few were found to be in his support.

The next morning the town-goers found prominently displayed in the window of the man's store, this sign:

"Liberal reward for information leading to the identification of the two men who voted for me."

The spirit of the man who could take defeat with a smile was dynamic. A man who could lose and laugh, people thought, was worthy of their respect. So he grew in popularity, and his business grew, and he became very prosperous. Had the man been a poor loser and shown resentment, he would have lost out. Instead, he kept on smiling.

A well-known football coach relates how one of the toughest games of the season was won with a grin. When the hardest part of the fight came and defeat seemed certain, the players began joking and laughing at the rival team. The opponents were so surprised at the unusual attitude that they became confused and failed to play their best. "Keep smiling" forced open the door of victory in that football game.

No matter what door in life you wish to open, you will find that it will open easier if you try the formula, "keep smiling."—*Albert Rand.*

The Frog and the Deacon

A GREAT many people we know remind us of the frog that Charles Kettering, chief research engineer of General Motors told about the other day.

A deacon was on his way to church one Sunday morning, dressed in his best and with his shoes nicely polished, when he heard his name called from a mudhole near the roadside. Down in the hole was a big bullfrog.

"I have been in here three days," said the frog, "without anything to eat, and I wish you would help me out."

The deacon looked at the mud and looked at his shiny shoes and remembered that he had to pass the collection plate in church, so he replied; "I'm sorry old man, I can't help you now, but on my way back from church I'll give you a lift out of the hole."

As he came back from church the deacon was surprised to find the frog sitting in the middle of the road, contentedly snapping at flies.

"I thought you said you couldn't get out of that hole," said the deacon.

"I thought I couldn't either, until a snake came along and I just had to get out," replied the frog.

Lots of people these days are discovering that they can do things they didn't think they could do. Under the pressure of necessity every one of us can accomplish the impossible. In good times nobody uses more than a fraction of his ability and resourcefulness. But when the snake of hard times comes along we just have to get out of a hole, and like the frog in Mr. Kettering's story, we find some way to do what we didn't believe we could do.

It is a good thing for humanity that life is not always pleasant and easy. Intelligence, ability and character are only developed to their best in the face of adversity. And the harder the struggle, the more fun there is in looking back on it, after the peak has been passed.—*Lubec Herald, Lubec, Me.*

Valuable Taxpayers

IT is said that many merchants in Middle Western towns are now specifying that merchandise purchased by them be sent to them by rail and not by truck, and are refusing to accept truck shipments. Public sentiment on the rail question has changed remarkably in the past few years, as the people come to realize what a valuable taxpayer the railroad is.—*Ballston Spa Daily Journal.*

How Our Reclamation Plant Helped in

Making a Hot Box Record

IN "The Bulletin" of January 1,1930 a description was given of the methods and apparatus employed in the renovation of journal box packing at the reclamation plant at Oneonta, N. Y. It was pointed out in this article that the establishment of this plant was the result of successful experiments conducted during the years 1928 and 1929, and that the system marked a new era of waste reclamation.

The purpose of this plant was to effectively renovate the oil and waste recovered from used journal box packing at a reasonable cost, thus avoiding the use of new waste and oil in repacking of journal boxes, in order to meet A. R. A requirements, which would represent large expenditures for material.

What is more important, however, is the treatment of axle journals with a grade of oil and waste (packing) that will insure proper lubrication and thereby prevent the expensive train delays occasioned by hot boxes, which investigation has shown to be due, in the main, to ineffective lubricants. It is estimated, conservatively, that the cost of setting out a car is thirty dollars ($30.00). Moreover, if the car is loaded, which usually is the case when a journal runs hot, the shipment is delayed and the service often criticized. Consequently, unless heating failures are reduced the economies claimed for the use of reclaimed materials are nullified.

Since the operation of this plant further reductions have been made in hot boxes and considerable economies effected in production costs of renovated lubricants. At the outset the personnel of the plant consisted of one supervisor and three oil and waste attendants, but with the introduction of piece-work the force was reduced to one supervisor and one attendant. Recent experiments have revealed that costs can be further reduced by eliminating the use of chemical compounds in the treatment of renovated oil. It had previously been the practice to deposit chemicals in the oil to hasten the precipitation of any foreign matter remaining at the end of the mechanical treatment. The present practice is to allow the oil as it is received from the Centrifugal Clarifier to settle under varying temperature ranges. That this method is highly satisfactory is attested by the increased mileage per hot box in our freight trains. For example:

Year	*Month*	*Hot Boxes*	*Miles per Failure*
1931	Nov.	35	349,862
1931	Dec.	31	398,960
1932	Jan.	25	434,276
1932	Feb.	20	532,547

From the foregoing tabulation it will be noted that a record of 532,547 miles per heating failure was made in February. This is the best performance thus far attained. It will be noted that there were only twenty (20) failures, and it is of interest to call attention to the fact that in six (6) cases the cars were treated enroute by the train crews. In other words, but fourteen (14) cars were set out of freight trains on account of hot box trouble. Only seven (7) of these failures occurred on cars of D. & H. ownership. During this period there were seventeen (17) days of freight train operation free from any such failure.

On many railroads it is the practice to specify winter and summer grades of oil, yet this procedure is generally admitted to be impracticable for it is commonly known to be the practice to pack journal boxes with summer oil, fully aware that it is for winter service and vice-versa. It is apparent, therefore, that the development of a grade of oil that will effectively lubricate throughout the entire year would be most desirable. We have been experimenting for the past two (2) years by using our renovated oils for year-round service and the results have been very gratifying. We have found that an oil with a zero pour point and a viscosity range of 55-58 sec. at 210° F. is suitable under all seasonal conditions met. In fact, this oil has performed so satisfactorily that but one grade of new oil is specified.

Although this article deals mainly with the quality of lubricants essential to good train operation, it is equally important to inspect such mechanical elements as the journal, box, brass, wedge and general truck conditions, principally springs, side bearings, in order to assure satisfactory performance. The success we have achieved is, in no small measure, due to strict attention to details insisted upon by our supervisors.

Library Books

PUBLICATION in the March 1 issue of another list of books available in the Delaware and Hudson library produced results which exceeded the librarian's wildest expectations. A telegraphic request came from an employee who wished her to send him *Poor's Manual of Railroads* 1920-1929, inclusive. As each of the books in question is about three inches thick and weighs several pounds this made a "large order."

The following lists may suggest subjects which appeal to other readers, to whom the books will be sent upon request to Mrs. Ida G. Smith, Librarian, Room 408, Delaware and Hudson Building, Albany. Books may be called for at the library in the case of employees who can do so.

LEGISLATIVE

385	*Law, American Railroad*, by Baldwin.
080	*Law, Interstate Commerce*, The Traffic Library.
340	*Laws of New York*, 1926.
352	*Laws and Ordinances, City of Albany*, 1885.
328	*Legislative Manuals of N. Y. State*, 1898, 1899, 1903, 1904, 1910, 1912, 1913, 1915 to 1931, incl.
328	*Legislative Manual, The New York Red Book*, 1895 to 1904 incl., 1906, 1907, 1909, 1911, 1912, 1913, 1915, to 1931, incl.
328	*Legislative Manuals*, Smull's, 1901, 1904.
328	*Legislative Record and Index, N. Y.*, 1924.
360	*Legislatures, State—Sessions of* 1923, Bills Introduced and Laws Enacted Relating to Railway Operation.

RELATION TO THE STATE

336	*Census, Bureau of—Taxation and Revenue Systems of State and Local Government.*
310	*Census of Manufacturers, Abstract of the*, 1914.
310	*Census, Special Reports U. S.*, 1902, 1903, 1904, 1905, 1907.
310	*Census of the United States*, 1900, 1910, 1920.
337	*Tariff, Canadian Customs*, 1913.
337	*Tariff*, Downings U. S. Customs, 1913.
080	*Tariff, Application of*, The Traffic Library.
360	*Tax Assn. National*, Proceedings of National Conference, 1915.
352	*Tax Commission, Annual Report, N. Y. State*, 1918, 1920, 1921, 1922, 1925, 1926, 1927, 1928.
656	*Tax Commissioner and Bank Commissioner* (Relative to Assets and Liabilities of N. Y. N. H. & H. R. R.).
352	*Tax Commission of Wisconsin*, 1914.
352	*Taxation, N. Y. State Conference on*, 1911 and 1912.
336	*Taxation and Revenues, Systems of State and Local Government*, 1912
336	*Taxation, State Conference on*, Conference of Legal Assessors, 1916.
336	*Taxation, Systems of State of New York*, 1888.
310	*Taxation, Wealth, Debt*, Census of U. S., Special Reports.

'Twas Called "Pumpkin Hollow"

(*Continued from page 100*)

mouth and Hudson was made doubly difficult and hazardous because of the fact that Delaware and Hudson crews ran over the tracks of four different railroads in that short distance: their own, the Lehigh Valley, Central Railroad of New Jersey, and the Delaware, Lackawanna and Western. The crews therefore had not only to be familiar with the books of rules of all these lines but they had to watch the schedule of each to avoid collisions.

Eventually MR. COTTON moved back to Hudson to handle mine runs in the vicinity under Amos Carl, who was both Road Master and Train Master. Mr. R. Manville was then Superintendent; later he was succeeded by his son. About 25 years ago MR. COTTON moved to Wilkes-Barre to take over the local freight between Wilkes-Barre and Green Ridge, a position which he held for nine years. After that he pulled passenger trains between Wilkes-Barre and Carbondale and Wilkes-Barre and Nineveh until 1915 when his health forced him to retire temporarily. In 1919 he returned to work in the Maintenance Department and completed his 58 years with the Delaware and Hudson as a machinist helper.

Last July MR. COTTON, already 10 years past the eligibility age for a pension, was retired. As a token of their esteem and friendship the employees of the Wilkes-Barre roundhouse gave him a pipe set at a party in his honor.

MR. COTTON now makes his home at 186 South Grant Street, Wilkes-Barre.

Natural Question

She came into the police station with a picture in her hand.

"My husband has disappeared," she sobbed. "Here is his picture. I want you to find him."

The inspector looked up from the photograph. "Why?" he asked.

Five Major Hazards

(*Continued from page 103*)

lowing year, they were paying their locomotive engineers $5.25 per week. These men worked harder and worked longer hours than now, did a great deal of mechanical work now not required, and made a much larger return to the company than does the locomotive engineer of today. The wages are now 13 times greater.

In 1830 the discount rate of the Bank of England was 4 per cent. This year the average discount rate, counting day by day, under the Federal Reserve Bank has been 1.837 per cent. The return on capital has decreased by 54 per cent. That is, capital rents for less than one-half; the wage has been multiplied 13 times. The effect of starving capital is not only to check its increase, but to greatly slow down progress in the "state of the art," to which it is devoted, and generally in that of industrial development. It is possible that the growth of industry will not keep pace with the growth in population. In that case, we have the resource of the agricultural life, which is the base upon which all else rests, and which may be engaged in either as a production enterprise or as a mode of life.

In Conclusion

IN considering employment relations it is important to recognize that it will not be possible to reduce the management, who conceive the enterprise and carry on the administration of the business, nor the capitalist, whose thrift provides the plant, the machinery and working capital, to a state of slavery. The employment relation is a voluntary relation on all sides and no one of the three elements owes any servitude to either or both of the other two. There is no obligation on either management or capital to afford or continue in employment particular workmen, nor any obligation on workmen to engage or continue their association in any enterprise, but it is of the first importance that the three parties when united in industry do everything possible to promote loyalty, efficiency, mutual confidence, and agreeableness in their relations.

The method of payment of the workman by piece-work has been militated against by a tendency in numerous cases to change the piece-work rate. As the earnings of the workman increased these rates were lowered, so that he came to feel that his increased interest, adaptation and output secured him no money reward. Is not industry today greatly endangered by the decreasing reward to capital, by the very inadequate compensation of management, and by the very rapid and large increases in the compensation of the workmen? Manifestly, if industry is to be healthy and vigorous and to progress constantly, these relations must be worked out upon a basis satisfactory to all.

Even as the Good Samaritan rendered his aid to the distressed as an individual and not as a traveller, so the handling of the five major hazards of the workman are human relations and in no sense industrial relations. The responsibility cannot be imported into industry; the motivation must be taken by the human beings thus brought into association. Industry implies service and is no more than a vehicle.

It is hazardous to become maudlin about the workmen's position. We should frankly recognize their difficulties; study carefully their five major hazards. These, I think, are remediable and, while I have indicated some, other methods by which as good or better results can be accomplished are probably numerous.

It is not necessary to regard these activities as those of charity or pure benevolence, nor even as resting upon the sound economic basis of enlightened selfishness; rather are they an indication of the ability to create a condition because the strength of the parties in association is greater than the sum of the strength of the individuals so related.

During the past 8 years, 1923-1929, both inclusive, the contributions by the company for employe benefits have totaled $2,398,418; the contributions by the employes $2,178,882; and the latter have received in benefits a total of $3,807,310, divided:

Sickness	$ 723,427
Total and Permanent Disability	52,008
Accident	63,425
Accidental Death and Dismemberment	137,500
Death	1,683,796
Pensions	1,068,272
Incapacitated	54,222
Dismissal Allowance	24,660

President Loree's article "The Five Major Hazards of the Workman" is reprinted from "Manufacturers Record" of January 14 and 21, 1932.

* * *

California's mines produced $13,000,000 in gold, silver, copper and lead in 1930. This was a decrease of about $2,000,000 under 1929. The output of gold, silver and lead increased, but copper fell off greatly.

Postal Pistol Matches

AFTER firing the first four matches in the National Rifle Association Postal Pistol Tournament, in which six teams are participating, the Delaware and Hudson Railroad Police Department team is tied for first place with the Boston Municipal Police, each having won three and lost one. The police organizations entered in this year's competition include some of the finest marksmen in the country.

Particularly sensational has been the consistently high scoring of Lieutenant Desmond of Boston who has averaged 293 out of a possible 300 in the four matches fired. Other sharpshooters in the group have been only a few points below that mark.

Our high man, Patrolman JAMES OVERBAUGH, has maintained a pace of 286 to date, while the entire Delaware and Hudson team has averaged over 282, and their consistently good shooting has kept them among the leaders.

In the first match our Police Department's entrant defeated Washington, D. C.,1393-1388, and the following week they overcame New York City 1421-1358. With Desmond and Vail both shooting 292 Boston then triumphed over the railroaders 1429-1396, and Boston temporarily went into the lead. The following week, however, Boston was beaten while the Delaware and Hudson five turned back Massachusetts State Police 1404-1370.

This year's schedule calls for ten matches, each team competing against the others twice. The winner will receive a silver loving cup similar to the one awarded to our team last year after it had completed the series undefeated.

All matches are fired on the team's home ranges and the certified scores are mailed to the Association's headquarters at Washington where the results are tabulated and then forwarded to the captains of the competing teams.

To date the Delaware and Hudson men's individual averages are: OVERBAUGH 286, RUSS 283, MASKO 281, GRATCOFSKY 280, and PENNINGTON 275.

Mechanicville Transfer

(*Continued from page 105*)

yard office and thence to the conductor who will move the car out of Mechanicville.

At the present time an average of 120 cars is handled daily at Mechanicville freight transfer platform; under normal conditions this figure would exceed 155. During the year 1931 a total of 34,088 cars were handled, containing in the neighborhood of 7,000,000 parcels of freight.

One of the most difficult things to control is over, short, and damaged items because errors are bound to happen in the handling of such a tremendous volume of freight. Nevertheless, during the entire year only nine claims were presented to the company by patrons as a result of errors or damage at Mechanicville.

The first transfer platform at Mechanicville, which was placed in operation June 18, 1894, was 500 feet long, the two tracks, one on each side, providing space for not more than 28 cars. Later two more tracks were added to double the platform's capacity. By way of comparison it might be said that the three platforms now in use are 678, 823, and 829 feet long, respectively, accommodating a total of 140 cars.

In the nineties the only cars handled at the Mechanicville transfer were loads originating on the Fitchburg Railroad, which had just taken over the Troy and Boston, and is now part of the Boston and Maine. Each car would contain shipments consigned to a number of points on the Delaware and Hudson. At Mechanicville all the freight for a given point was transferred into a single car. Freight for points on connecting lines was again transferred at the junctions with other roads for cars were not interchanged at that time.

In November, 1896, the transfer's work was expanded to include cars from northern points on the Delaware and Hudson and the forces then began to load cars for all points on the system as well as connecting lines. Seven or eight gangs were then employed; today there are 18 gangs. The payroll costs in January, 1896, totalled $326.25; now they are more than that amount for a single day.

Mississippi

THE word "Mississippi" is one of the most distinctive names in the American vocabulary. Once seen or heard it is seldom forgotten. The ability to spell or pronounce it correctly marks a milestone of achievement in the life of every American child.

The name is an anglicized form of the Algonquin "Meche Sebe," meaning "Great River." Chevalier Tonti spelled it "Miche Sepe." Pere Laval condensed into one word, "Michisepe." Others called it "Mechasabe." Father Honnepin recorded it as "Mechasipi," and Father Marquette came close to the present spelling with "Mississippy."

The state of Mississippi was first explored by De Soto in 1541, and the first permanent settlement was established at Biloxi by Iberville and Blenville in 1699. Mississippi was admitted to statehood in 1817.—*Illinois Central Magazine.*

Clicks from the Rails

First Steam Engine

"Who did build the first steam engine in the world? Ordinarily credit is given to James Watt," says *Railway Age*, "but the director of the Technical Museum of Stockholm, Sweden, has other ideas. He says that the first steam engine was built in 1728, eight years before the birth of James Watt, and its constructor was Maaron Triewald, a Swedish professor of astronomy. The Swedish professor's steam engine is supposed to have been used for seven years at the mines in Dannemora in central Sweden, until lightning destroyed it in 1735."

✣

Coach for Schoolroom

When all other agencies had failed to produce a schoolroom for a class in religious education at Covington, Ky., the Louisville and Nashville Railroad offered the teacher the use of a passenger coach. The coach, which had been removed from the trucks, was being used by the railroad as an instruction car. There was, however, no reason why the children could not use it for a short period one day a week. The generous offer was accepted and the children are delighted with their new classroom.

✣

Hobo-Entertainer

When special agents of the Illinois Central arrested Ernest Adams, a train rider, as he emerged from a car in a freight train at Memphis, Tenn., they inadvertently made a radio broadcaster out of him. Adams startled the jail attendants by his singing and playing upon a Hawaiian guitar. News of his talents spread, and the result was a try-out at the radio studios of station WMC. Now he is free and has a regular place on the daily programs of that station.

Railroad Earns $214

One of the railroads which was still in the black throughout 1931 was the two and one-half mile line linking Hanover and North Hanover, Ill. Hanover, situated in the center of the stock-raising region, had no rail service until a few years ago when this line was constructed. Although the 300 stockholders received no dividend in 1931 the annual report showed a profit of 71.3 cents a share. The $214 profit was appropriated for improvements to the track.

✣

Train Named "Edison"

As an enduring tribute to the memory of the late Thomas A. Edison, the Pennsylvania Railroad has named one of its fast trains, linking New York and Washington, D. C., the "Edison."

Help Wanted

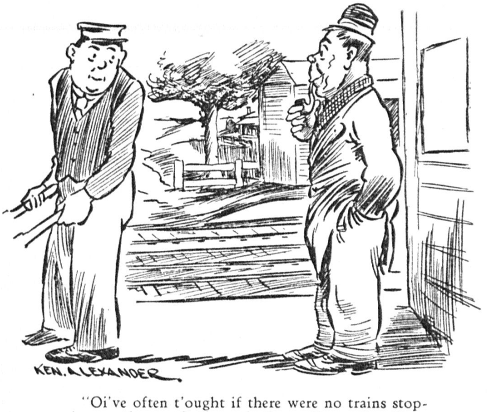
Ten thousand American railroad men wanted by the Russian Government which is modernizing its 50,000 mile system—the world's largest railroad under unified control. Over 250 Americans have already gone over. Wages are based on the American scale although living conditions are inferior and Russian railroading is scarcely out of the pioneer stage. It is also difficult to exchange Russian roubles for dollars.

✣

Rails 196 Feet Long

The German Railroad Company, which began some years ago increasing the length of its rails to 30 meters, is now experimenting with rails 60 meters, or more than 196 feet long. More than 2,500 miles of track are now laid with 30-meter rails, and over 40 miles have been equipped with rails 60 meters long. "Clicks From the Rails" will be few and far between on such a railroad!

The Irish Express



"Oi've often t'ought if there were no trains stopping as they rush through the stations, there'd be no stations, and then where would we go to catch the trains?"—*New Zealand Railways Magazine.*

Content

THERE is a jewel which no Indian mines
Can buy, no chemic art can counterfeit;
It makes men rich in greatest poverty;
Makes water wine, turns wooden cups to gold,
The homely whistle to sweet music's strain:
Seldom it comes, to few from heaven sent,
That much in little, all in naught—Content.

—ANONYMOUS.